

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Werner Ertle et al.

Serial No.: 10/522,502

Filed: November 11, 2005

Docket No.: 1431.124.101/FIN404PCT/US

Title: SEMICONDUCTOR WAFER WITH ELECTRICALLY CONNECTED CONTACT AND TEST AREAS

REMARKS

The following remarks are made in response to the Final Office Action mailed November 10, 2009. Claims 34-37 have been withdrawn from consideration. Claims 18, 19, 22-33, 38, 39, 41 and 42 were rejected. With this Response, claims 18, 28, 38 and 39 have been amended and claims 43 and 44 have been added. Claims 18, 19, 22-39 and 41-44 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 103

The Office Action rejected claims 18, 26-28, 38, 39, 41 and 42 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kim et al., U.S. Patent No. 6,159,826 (“Kim”) in view of Strauss, U.S. Patent No. 5,719,449 (“Strauss”). Applicants respectfully traverse these rejections.

Independent claims 18, 28, 38 and 39 have been amended to more clearly define the recited devices. More particularly, the claims recite the test areas being sealed and the contact areas not being sealed. This clarifies a further difference between a test area and a contact area and, therefore, clarifies that the contact areas onto which the contacts such as bond wires or solder balls are mounted are positioned peripheral to the test contact areas. This arrangement of the contact areas and test area areas is the opposite as that disclosed in the cited references, see for example figures 2 and 3 of Strauss and figure 5 of Kim.

The Office Action does not identify a disclosure in either the Kim or Strauss references of the recited structure. Moreover, it would not be obvious to one skilled in the art to seal test areas positioned above the active second region having active components of an integrated circuit, since these test areas are conventionally not sealed so as to enable bond wires or other contact such as flip chip contacts to be attached to these areas and enable the active components of the active region to be electrically accessed via these contacts from outside of the body of the semiconductor chip.

It would also appear disadvantageous to the person of ordinary skill in the art to attach the bond wires or flip chip contacts to the peripherally arranged areas, i.e. the contact areas above the passive region, rather than to those areas above the active region since the length of the

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electrical connection from the contact to the active cell of the semiconductor chip is increased. Increasing the length of the electrical connection would appear to be disadvantageous since the inductance of the electrical connections would be increased.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection to claims 18, 26-28, 38, 39, 41 and 42, and request allowance of these claims.

The Examiner rejected claims 19, 22-25 and 29-33 under 35 U.S.C. § 103(a) as being unpatentable over the Kim in view of Strauss and further in view of Henson U.S. Patent No. 6,133,054. These claims are all ultimately dependent on either claim 18 or claim 28, which are allowable as set forth above. As such, claims 19, 22-25 and 29-33 are allowable for at least the same reasons.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection to claims 19, 22-25 and 29-33, and request allowance of these claims.

New Claims

Claims 43 and 44 have been added herein. These claims depend on claim 18 and further define the sealed test areas. As such, they are allowable for at least the same reasons as claim 18.

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CONCLUSION

In view of the above, Applicant respectfully submits that all of the pending claims are in form for allowance. Since the amendments presented herein place the Application in condition for allowance, their entry is believed proper in accordance with 37 CFR 1.116. Therefore, reconsideration and withdrawal of the rejections and allowance of the claims are respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Mark L. Gleason at Telephone No. (612) 767-2503, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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